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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,511	11/24/2003	Bruce Jon Savatsky	2002U022.US	5159

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EXAMINER

CHEUNG, WILLIAM K

ART UNIT

PAPER NUMBER

1713

DATE MAILED: 08/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/720,511

**Applicant(s)**

SAVATSKY ET AL.

**Examiner**

William K Cheung

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>0223</u> . | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Muhle et al. (US 5,672,666).

*The present invention relates to a **process for transitioning from a first polymerization reaction using a first catalyst system to produce a first polymerization product to a second polymerization reaction producing a second polymerization product wherein the second polymerization reaction is incompatible with the first polymerization catalyst system or first polymerization product in a gas-phase reactor, comprising:***

*(a) **after the first polymerization reaction, conducting multiple polymerization reactions in the gas-phase reactor using multiple polymerization catalyst systems, multiple reactor conditions and/or multiple feed streams to form multiple polymerization products;***

- (b) forming a substantially contaminant-free seedbed from each polymerization reaction** by removing a portion of the polymerization product from each polymerization reaction and stripping or venting reactants and contaminants from each polymerization product;
- (c) deactivating catalyst species entrained or contained with each polymerization product** without contacting the polymerization product with excess deactivator;
- (d) optionally, after the deactivation step, stripping or venting reactants and contaminants from each polymerization product;**
- (e) storing each substantially contaminant-free seedbed separately in a storage container under dry inert atmosphere to maintain each seed bed as substantially-free of contaminants;**
- (f) stopping each multiple polymerization reaction;**
- (g) removing the contents** of each multiple polymerization reaction from the gas-phase reactor while preventing the introduction of additional or substantial contaminants;
- (h) selecting a stored substantially contaminant-free seedbed that is compatible with the second polymerization reaction** in regards to polymerization product or polymerization catalyst system;
- (i) introducing the selected substantially contaminant-free seedbed into the gas-phase reactor** while preventing the introduction of additional or substantial contaminants to the seedbed and reactor;
- (j) introducing a second feed system** into the gas-phase reactor;

***(k) introducing a second catalyst system into the gas-phase reactor; and***

***(l) conducting the second polymerization reaction.***

Muhle et al. in its entirety disclose a process for transition between incompatible polymerization catalysts, specifically the transition from an olefin polymerization utilizing a traditional Ziegler-Natta Catalyst system to a metallocene-olefin polymerization process. In working examples (col. 9 to 17), Muhle et al. clearly teach the criticality of avoiding contaminant through out the entire polymerization process which includes the transition process because the comparative examples have indicated that any contaminant from the first polymerization would result in additional polymerization activities in the second polymerization.

Regarding the remaining claimed processing steps, they are typical processing steps found in every gas phase polymerization process such as the one disclosed in Muhle et al. Therefore, the examiner has a reasonable basis to believe that these routine processing steps are inherently possessed in Muhle et al.

Regarding the claimed "multiple reactor" feature, Muhle et al. (col. 17, line 18-28) clearly suggest that the catalyst transitioning process applicable to a gas phase polymerization process involving one or more reactors. Therefore, the examiner believes that one of ordinary skill in art to recognize the values of

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performing a catalyst transition process in a multiple reactor polymerization process such as the one being claimed. Muhle et al. contain all the limitation of claims 1-18. Claims 1-18 are anticipated.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William K Cheung whose telephone number is (571) 272-1097. The examiner can normally be reached on Monday-Friday 9:00AM to 2:00PM; 4:00PM to 8:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David WU can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



William K. Cheung

Primary Examiner

August 24, 2004

**WILLIAM K. CHEUNG  
PRIMARY EXAMINER**